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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/602,557	06/24/2003	Thomas A. Makowski	5150-81100	1251

7590 10/31/2007
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EXAMINER

PHAM, CHRYSTINE

ART UNIT	PAPER NUMBER
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2192

MAIL DATE	DELIVERY MODE
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10/31/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/602,557	Applicant(s) MAKOWSKI ET AL.	
	Examiner Chrystine Pham	Art Unit 2192	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 August 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 and 26-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 and 26-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on August 17, 2007 has been entered.
2. This action is responsive to Amendment filed on August 17, 2007. Claims 1, 27 and 28 have been amended. Claims 1-18, and 26-28 are presented for examination.

Response to Amendment

3. In view of the amendment to the Specification to overcome informalities identified in the previous Office Action, objection to the Specification is hereby withdrawn.

Response to Arguments

4. Applicant's arguments with respect to new claim limitations have been considered but are moot in view of the new ground(s) of rejection (see Kawachi et al. US 6,690,981 B1 and Hudson et al. US 7,024,631 B1).

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5. Applicant's arguments with respect to claim rejections under 35 USC 101 have been considered and are persuasive. The rejection of claims 1-18 and 26 under 35 USC 101 is hereby withdrawn.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1, 4, 12, 15-18, and 26-28 are rejected under 35 U.S.C. 102(e) as being anticipated by Kawachi et al. (US 6,690,981 B1, "Kawachi").

Claim 1

Kawachi teaches a computer accessible memory medium (see at least 166 FIG.6 & associated text) comprising program instructions, wherein the program instructions are executable to implement (see at least 102 FIG.5B & associated text): displaying a palette, including a display window comprising a plurality of graphical program nodes for use in a graphical program, wherein each graphical program node comprises an icon and a program code, wherein each graphical program node is represented by the graphical program node's respective icon in the palette and is selectable from the

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palette for inclusion in the graphical program (see at least *palette, reference control* col.13:24-43; *user interface controls, reference nodes* col.10:38-53; col.11:42-55; FIG.10 & associated text); wherein the plurality of graphical program nodes comprise comprises: a first plurality of function nodes displayed in the display window, wherein each function node corresponds to a respective functionality (see at least FIGS.7A-7B & associated text); and a second plurality of property nodes (see at least FIG.22 & associated text) displayed in the display window, wherein each property node corresponds to a respective one of at least a subset of the plurality of function nodes (see at least FIGS.18A-18B, 19 & associated text), wherein each property node is displayed proximate to said respective one of the at least a subset of the plurality of function nodes (see at least FIGS.1, 12, 14 & associated text).

Claim 4

The rejection of base claim 1 is incorporated. Kawachi further teaches wherein the first plurality of function nodes are organized in the display window in accordance with one or more of: order of use in a typical graphical program development session; frequency of use in a typical graphical program development session; and functional relationships among the first plurality of function nodes (see at least *reference control, subprogram user interface panel, subprogram nodes, property nodes* col.13:44-55).

Claim 12

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The rejection of base claim 1 is incorporated. Kawachi further teaches wherein each of the second plurality of property nodes comprises a function specific property node corresponding to a respective function; and wherein each function specific property node comprises one or more parameters for configuring corresponding attributes for the graphical program (see at least FIGS.10-13 & associated text).

Claim 15

The rejection of base claim 1 is incorporated. Kawachi further teaches wherein each function node comprises a function node icon, and wherein the function node icon comprises a first image; wherein each property node comprises a property node icon and wherein the function node icon comprises a second image; and wherein the second image comprises a version of the first image, indicating the correspondence between the property node and the corresponding function node (see at least FIG.7A & associated text; FIGS.10-14 & associated text)

Claim 16

The rejection of base claim 1 is incorporated. Kawachi further teaches wherein the program instructions are further executable to implement: displaying one or more tool icons in the display window, wherein each tool icon represents a respective graphical program development tool, and wherein each tool icon is user-selectable to invoke the respective graphical program development tool (see at least FIGS.7A-7B & associated text; *reference nodes, user interface controls, user interface input controls, user*

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interface output controls col.10:38-55).

Claim 17

The rejection of base claim 1 is incorporated. Kawachi further teaches wherein the program instructions are further executable to implement: displaying one or more function palette icons in the display window, wherein each function palette icon represents a respective sub-palette of one or more additional function nodes and/or one or more additional function palettes (see at least *subprogram, nodes, property nodes col.5:17-27*).

Claim 18

The rejection of base claim 17 is incorporated. Kawachi further teaches wherein the one or more function palette icons are user-selectable to invoke display of one or more of: a palette of function nodes related to advanced device configuration; a palette of function nodes related to advanced task configuration; and a palette of one or more additional sub-palettes comprising miscellaneous advanced function nodes (see at least *data acquisition, measurement application, process control application col.8:3-6*).

Claims 26-28

Claims recite limitations, which have been addressed in claim 1, therefore, are rejected for the same reasons as cited in claim 1.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 2-3, 5-11 and 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawachi in view of Hudson et al. (US 7,024,631 B1, "Hudson").

Claim 2

The rejection of base claim 1 is incorporated. Kawachi does not expressly disclose wherein each of the first plurality of function nodes comprises a polymorphic function node; and wherein each polymorphic function node corresponds to a respective generic functionality, wherein each function node is type-switchable between each of a plurality of function node types, and wherein each function node type corresponds to a respective specific functionality. However, Hudson teaches wherein each of the first plurality of function nodes comprises a polymorphic function node (see at least 410, 412 FIG.15 & associated text); and wherein each polymorphic function node corresponds to a respective generic functionality, wherein each function node is type-switchable between each of a plurality of function node types, and wherein each function node type corresponds to a respective specific functionality (see at least *overloading*, "*print*" *function* col.3:55-67). Kawachi and Hudson are analogous art because they are both

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directed to graphical programming. It would have been obvious to one of ordinary skill in the pertinent art at the time the invention was made to incorporate the teaching of Hudson into that of Kawachi for the inclusion of polymorphic nodes. And the motivation for doing so would have been to enable the increase the level of abstraction, and code readability as well as increase the ease of program development and maintenance (see at least Hudson col.3:64-col.4:60).

Claim 3

The rejection of base claim 2 is incorporated. Hudson further teaches wherein each of the first plurality of function nodes has a default function node type, and wherein the default function node type corresponds to a respective default specific functionality for the function node (see at least col.3:55-67).

Claim 5

The rejection of base claim 1 is incorporated. Hudson further teaches wherein the first plurality of function nodes comprises two or more of: a channel creation node; a read node; and a write node (see at least FIG.12 & associated text; 400, 402 FIG.13 & associated text; FIGS.1A-1B & associated text).

Claim 6

The rejection of base claim 5 is incorporated. Kawachi further teaches wherein the first plurality of function nodes further comprises: a wait until done node (see at least col.8:1-

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6).

Claim 7

The rejection of base claim 5 is incorporated. Hudson further teaches wherein the two or more of the channel creation node, the read node, and the write node comprise a primary set of function nodes (see at least FIG.12 & associated text; 400, 402 FIG.13 & associated text; FIGS.1A-1B & associated text).

Claim 8

The rejection of base claim 7 is incorporated. Kawachi further teaches wherein the first plurality of function nodes further comprises one or more of: a timing node; a triggering node; a start node; a stop node; and a clear node (see at least FIGS.7A-7B & associated text).

Claim 9

The rejection of base claim 8 is incorporated. Hudson further teaches wherein the one or more of the timing node, the triggering node, the start node, the stop node, and the clear node comprise a secondary set of function nodes; and wherein the primary set of function nodes and the secondary set of function nodes are displayed in the display window in respective groups (see at least FIG.17 & associated text).

Claim 10

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The rejection of base claim 9 is incorporated. Hudson further teaches wherein, in displaying the primary set of function nodes and the secondary set of function nodes in the display window in respective groups, the primary set of function nodes is displayed in a first row in the display window and the secondary set of function nodes is displayed in a second row in the display window (see at least FIG.7 & associated text).

Claim 13

The rejection of base claim 12 is incorporated. Claim recites limitations, which have been addressed in claim 5, therefore, is rejected for the same reasons as cited in claim 5.

Claim 14

The rejection of base claim 13 is incorporated. Hudson further teaches wherein, in each property node being displayed proximate to the respective one of the at least a subset of the plurality of function nodes, each property node is displayed in one of: a common row with the respective one of the at least a subset of the plurality of function nodes a common column with the respective one of the at least a subset of the plurality of function nodes (see at least FIGS.7, 15 & associated text).

Claim 11

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The rejection of base claim 9 is incorporated. Claim recites limitations, which have been addressed in claims 9 and 14, therefore, is rejected for the same reasons as cited in claims 9 and 14.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chrystine Pham whose telephone number is 571-272-3702. The examiner can normally be reached on Mon-Fri, 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam can be reached on 571-272-3695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


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SUPERVISORY PATENT EXAMINER